INTERNATIONAL SEARCH REPORT

onal Application No PCT/FR2004/050563

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H0109/28 H010 H0109/06 H01Q1/12 According to International Patent Classification (IPC) or to both national classification and IPC Minimum documentation searched (classification system followed by classification symbols) IPC 7 H01Q Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages 1-5 MIKAVICA M ET AL: "A novel broadband X printed antenna element" MEDITERRANEAN ELECTROTECHNICAL CONFERENCE, 1998. MELECON 98., 9TH TEL-AVIV, ISRAEL 18-20 MAY 1998, NEW YORK, NY, USA, IEEE, US, voi. 1, 18 May 1998 (1998-05-18), pages 256-259, XP010290675 ISBN: 0-7803-3879-0 paragraphs '0001!, '0002!; figure 1 7-17 X US 5 293 175 A (HEMMIE ET AL) 1,7 8 March 1994 (1994-03-08) abstract; figures 1,2 1.7 US 2004/056805 A1 (CHEN TAILEE) P,X 25 March 2004 (2004-03-25) abstract: figures 1,2 Patent family members are listed in annex. Further documents are listed in the continuation of box C. Special categories of cited documents : "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone document which may throw doubts on priority clalm(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "O" document referring to an oral disclosure, use, exhibition or document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 13/05/2005 26 April 2005 Authorized officer Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo ni, Fax: (+31-70) 340-3016

1

Marot-Lassauzaie, J

INTERNATIONAL SEARCH REPORT

Intercaional Application No PCT/FR2004/050563

| <u> </u> | ation) DOCUMENTS CONSIDERED TO BE RELEVANT | Relevant to claim No. |
|------------|----------------------------------------------------------------------------------------|-----------------------|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Resevant to Gam No. |
| Y | US 4 746 925 A (TORIYAMA ET AL) 24 May 1988 (1988-05-24) abstract; figure 3 | 10-17 |
| Y | US 6 054 961 A (GONG ET AL) 25 April 2000 (2000-04-25) figures 1,2 | 10-17 |
| Y | column 7, line 50 - column 8, line 59 | 9 |
| X | US 3 299 430 A (HUBER FRANZ R ET AL) 17 January 1967 (1967-01-17) figure 3 | 1 |
| Y | US 6 281 854 B1 (OHOKA SHINJI ET AL) 28 August 2001 (2001-08-28) figures 1-3 | 10-17 |
| Y | US 3 599 214 A (JOHN ALTMAYER) 10 August 1971 (1971-08-10) column 3, line 50 - line 55 | 7,8 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT/FR2004/050563

| Patent document cited in search report | | Publication date | | Patent family member(s) | | Publication date | ٠ |
|-------------------------------------------|----|------------------|----------------|-------------------------------|----------|----------------------------------------|-----|
| US 5293175 | Α | 08-03-1994 | US | 5229782 | A | 20-07-1993 | ٠,٢ |
| US 2004056805 | A1 | 25-03-2004 | TW | 560107 | В | 01-11-2003 | |
| US 4746925 | Α | 24-05-1988 | JP JP | 3002976 62026910 | Y2 !! | 25-01-1991 18-02-1987 | |
| | | | JP JP | 1892067 6020163 | č | 07-12-1994 16-03-1994 | |
| | | | JP | 62031204 | _ | 10-02-1987 | |
| US 6054961 | Α | 25-04-2000 | AU EP WO | 9212698 1012904 9913526 | A1 | 29-03-1999 28-06-2000 18-03-1999 | |
| US 3299430 | Α | 17-01-1967 | NONE | | | | |
| US 6281854 | B1 | 28-08-2001 | JP | 2001053521 | Α | 23-02-2001 | |
| US 3599214 | A | 10-08-1971 | NONE | | | | |
| | | | | | | | |